



GREENEST CITY

2020 ACTION PLAN

2011-2012 IMPLEMENTATION UPDATE



GREENEST CITY RANKINGS

2011 Economist Intelligence Unit,
Green City Index:

Ranked 2nd in North America

**2011 Canada's Most Sustainable
mid-size city** from Corporate Knights'
fourth annual Most Sustainable Cities
Ranking

GREENEST CITY AWARDS

2012 Federation of Canadian
Municipalities, Sustainable Community
Award

2012 Canada's Greenest Employer
Award organized by the editors of the
Canada's Top 100 Employers project

2012 Recycling Council of BC, Public
Sector Achievement Award for the City's
zero waste initiatives

2011 Union of British Columbia
Municipalities (UBCM), Climate & Energy
Action Award

OUR PROGRESS

GREENEST CITY AWARDS

The City of Vancouver's *Greenest City 2020 Action Plan* (GCAP), which was developed in partnership with the community, sets out the roadmap to a healthy, inclusive, prosperous and resilient future for Vancouver. The vision and work represented by this plan positions Vancouver to play a leadership role in the rapidly growing green economy, creating a paradigm of innovation and increasing jobs that will enable Vancouver to adapt to and prosper in a swiftly changing world.

Notable progress has been made since the plan's adoption by Vancouver City Council in July, 2011. This is the first annual implementation update.

The City is making good progress towards achieving the GCAP goals and targets, with 125 related projects underway. However, the City can't achieve these goals by itself. Partnerships with business, industry, community groups and non-profits are required, and active participation by ordinary citizens in creating change is absolutely essential. While there have been steps forward in the last year, there continues to be challenges in achieving what is one of the world's most comprehensive and ambitious plans. This report seeks to be transparent about the city's successes as well as the ongoing challenges that are faced.

This update is organized according to the ten goals of the *Greenest City 2020 Action Plan*, which can be found at: vancouver.ca/GreenestCityActionPlan

OVERVIEW

In July 2011, Vancouver City Council adopted the targets and actions in the *Greenest City 2020 Action Plan*. Over 35,000 people were consulted in developing the plan which highlights actions and strategies to make Vancouver the greenest city in the world by 2020.

There are 10 goal areas within the plan, each with specific targets, totalling 15 targets in all. Many actions support multiple, interconnected goals across the entire plan. For example, increasing composting and gardening will support the Green Economy, Zero Waste,

Access to Nature and Local Food targets, while improving transit services supports the Climate Leadership, Green Transportation and Clean Air targets.

Interconnection is key to this plan. The ability to achieve the goals and targets relies on an ability to create strong and effective partnerships with all of the organizations in Vancouver that have a role to play in greening the city. This includes other levels of government, non-profit organizations, businesses, and social enterprises. Most importantly, it includes you.

“It’s up to everyone to do their part, to rethink, re-evaluate and re-imagine the way Vancouver works and how we lead our lives.”

From 2020: A Bright Green Future

THE GREENEST CITY 2020 ACTION PLAN – TO BE THE GREENEST CITY IN THE WORLD BY 2020

The *Greenest City 2020 Action Plan* is a strategy for staying on the leading edge of city-building sustainability.

The vision is to create opportunities today, while building a strong local economy, vibrant and inclusive neighbourhoods, and an internationally recognized city that meets the needs of generations to come. Everyone in Vancouver will play an important role in achieving this vision.





1

GREEN ECONOMY

GOAL: SECURE VANCOUVER'S INTERNATIONAL REPUTATION AS A MECCA OF GREEN ENTERPRISE

TARGETS:

- Double the number of green jobs over 2010 levels by 2020.
- Double the number of companies that are actively engaged in greening their operations over 2011 levels by 2020.

BENEFITS:

- Creates green jobs
- Grows the economy

Over 1,300 businesses in Vancouver engaged in greening their operations.

Developing Vancouver's green economy is both an opportunity and a priority. A green economy can be more competitive, less fossil-fuel dependent, more innovative and resilient. The City and the Vancouver Economic Commission are working to enable this through trade missions, supporting low-threshold employment, supporting green business opportunities and social enterprises, and collaborating with educational institutions.

2011-2012 SUCCESSES:

LAUNCHED THE VANCOUVER ECONOMIC ACTION STRATEGY

The Vancouver Economic Commission (VEC) released The Vancouver Economic Action Strategy: An Economic Development Plan¹ for the City in December 2011.

The plan includes steps towards a greener economy including:

- Partnerships with the private sector and senior levels of government to fund innovative green projects;
- Green Enterprise Zone that showcases and nurtures innovation in globally emerging sectors like clean tech and green buildings;
- A technology incubator or accelerator to support innovative start-ups in cleantech, clean energy and sustainability;
- BusinessWorks, a program to engage the local business community including the greening of their operations; and,
- Green procurement and promotion of local innovators.

HOSTED VANCOUVER CITIES SUMMIT

In February the City hosted the first annual Cities Summit², a two day international summit for business and urban leaders to discuss and design creative, practical solutions for a sustainable urban future. The summit, which attracted over 500 participants from 10 countries and 30 cities, exceeded all expectations and will become an annual event to bring together business and elected leaders to seek innovative ways to build a robust green economy.

¹ The Vancouver Economic Action Strategy: An Economic Development Plan vancouvereconomiccommission.com/assets/files/VEC_EAS_DEC2011_final.pdf

² Vancouver Cities Summit, February 1 and 2, 2012 vancouvercitiessummit.org



LAUNCHED THE CAMPUS-CITY COLLABORATIVE (C-3)

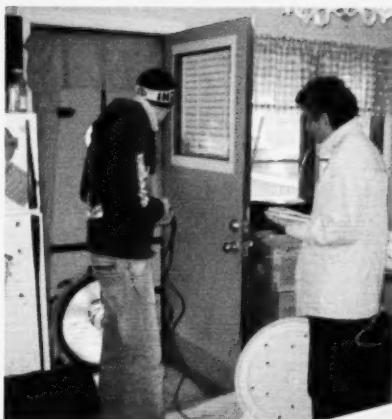
In 2011, the City, Vancouver Economic Commission and six post-secondary institutions launched an innovative partnership, Campus-City Collaborative (C-3), to grow Vancouver's international reputation as a mecca of green enterprise. Two C-3 projects have been implemented in the past year: City Studio and the Green Workforce Development Symposium.

CityStudio is the flagship program of Campus-City Collaborative (C-3). CityStudio is an intensive undergraduate level, four-month program dedicated to working on projects in support of the *Greenest City 2020 Action Plan*. Students from six public post-secondary institutions, across multiple disciplines, collaborated on various projects such as mapping the city's local food assets, building a long-table, hosting a dialogue series dedicated to engaging the public on sustainability issues, and mapping underutilized public spaces.

CityStudio is directed by professors Janet Moore from SFU and Duane Elverum from Emily Carr. To date, CityStudio has engaged 480 students and 18 faculty members, across 12 disciplines and six institutions, and has contributed over 20,000 hours of work and study to Vancouver's Greenest City Goals.

To find out more about the CityStudio or how to apply to participate, visit: citystudiovancouver.com

C-3's second initiative, the Green Workforce Development Symposium was held on March 2, 2012 at BCIT's downtown campus. The Symposium was led by Lori Becker and Janet Moore of BCIT in collaboration with GLOBE. It aimed to connect the City's six post-secondary institutions and their curriculum developers with industry employers to address skill shortages and gaps in the region's growing green economy. The sectors represented at the symposium included clean technology, green buildings, mining, health care and other sectors that strive to "green" all activities of their operations.



SUPPORTING THE GREENING OF VANCOUVER BUSINESSES

In 2011, the VEC commissioned a study of 500 businesses in Vancouver to determine how many were actively engaged in some form of environmental practice. The survey found that the majority of businesses are participating in recycling programs but only about one third are involved in energy efficiency programs, and even fewer have water conservation programs. Over 70 per cent of businesses in Vancouver have less than 10 employees, so finding the time and resources to devote to greening initiatives can be challenging. The VEC is currently developing a strategy to help support the greening of these smaller businesses.

CHALLENGES

Building a thriving green economy is challenging. There are land-use and zoning changes required to accommodate the right balance of industrial, commercial and residential uses to support job growth. In addition, rapid industry changes means the City needs to find ways to be more flexible and adaptable in supporting existing businesses and attracting new businesses.

"As a global green leader, Vancouver residents enjoy stunning natural beauty, clean air and water, and abundant natural places to live, work and play. Being a green city means protecting these natural assets, conserving energy and ensuring resources for future generations. This in turn allows the city to capitalize on the global low carbon market, attract investments in the economy, increase the number of green jobs and support innovation. More and more people want to work for green companies. The low carbon economy being created will help Vancouver retain talent and become a thriving global economy."

See Malleau, CEO of Vancouver Economic Commission



2

CLIMATE LEADERSHIP

GOAL: ELIMINATE DEPENDENCE ON FOSSIL FUELS

TARGETS:

- Reduce community-based greenhouse gas emissions by 33% from 2007 levels.

BENEFITS:

- Reduces energy costs
- Creates green jobs
- Improves air quality and health

Over 200,000 tonnes of CO₂e emissions captured from the landfill in 2011!

Climate change, caused by greenhouse gas emissions from human activities, is one of the biggest threats in history to human health, economic well-being and the environment. Reducing community-based greenhouse gas emissions is supported by many of the goals in the Plan as Vancouver works towards becoming a thriving low-carbon economy.

SUPPORTING EXPANSION OF LOW CARBON DISTRICT ENERGY

In 2011, Science World was added as a customer of the Southeast False Creek Neighbourhood Energy Utility (SEFC NEU). The SEFC NEU, a district heating system that captures waste heat from a municipal sewer line, avoided over 1000 tonnes of GHG emissions in 2011.

In 2011, River District Energy received approval from the British Columbia Utilities Commission to construct and operate a district energy system for The River District, a new 130 acre residential development in southeast Vancouver. The system will capture waste heat from an industrial operation, reducing reliance on fossil fuels and reducing the community's greenhouse gas emissions.

Staff are now developing a city-wide strategy for neighbourhood energy.

DEVELOPING A CLIMATE ADAPTATION PLAN

Anticipated effects of climate change in Vancouver include: rising sea levels, longer and drier summers, more intense rainfall, and more frequent and intense storms.

In 2011, the City developed a Climate Change Adaptation Strategy by identifying and prioritizing potential impacts and creating strategies to prepare and/or respond to them. The City worked with neighbouring municipalities, other levels of government and organizations such as the Fraser Basin Council and the Port in development of the Strategy.

The Strategy focuses on adding an adaptation lens to existing or planned projects such as integrated stormwater management and urban forest management planning. New actions include amending City flood-proofing policies and undertaking a coastal flood risk assessment to respond to hazards posed by sea level rise.

In addition to developing the Climate Change Adaptation Strategy, the City has also taken action on sea level rise by encouraging an increase in flood construction levels to protect buildings from flooding and ensure long-term resiliency.



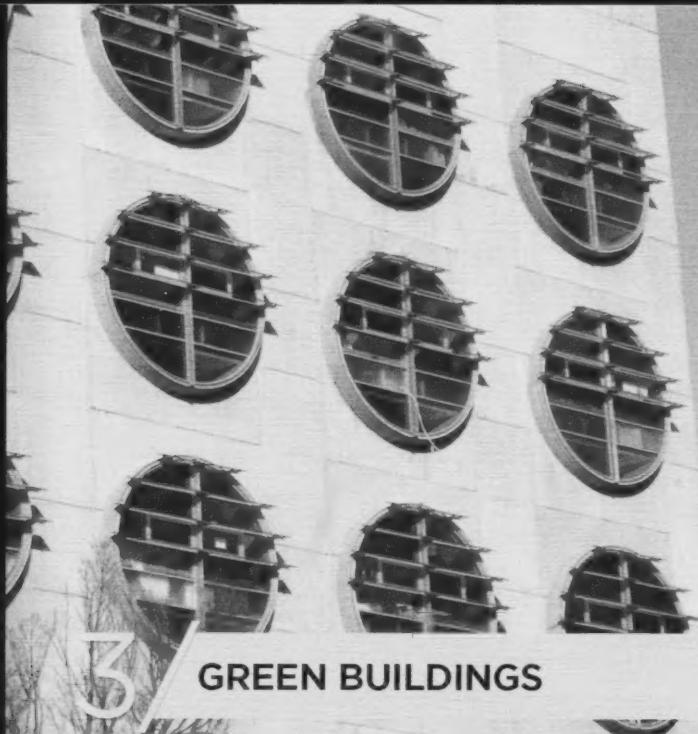
CAPTURING LANDFILL GAS

The City of Vancouver owns a landfill located in Delta. Methane released by the landfill contributes to the City's carbon footprint. Methane is created when the organics in garbage, such as food, paper and wood waste, rot. Methane is 21 times more powerful than carbon dioxide at trapping heat in the atmosphere, making it a greenhouse gas of significant concern. Capturing landfill gas and using it as an energy source to create both green electricity on the BC Hydro grid and heat for local greenhouses is an important strategy for reducing the City's greenhouse gas emissions. The City is investing 25 million dollars to improve gas collection, install additional wells, and cap a recently filled area of the landfill.

BC Hydro is the main electricity utility in the province and has one of the cleanest power generation portfolios in the world; producing electricity that is 93 per cent clean. However, changes made by the Provincial government in February 2012 to BC Hydro's self-sufficiency requirements, means that the way in which new province-wide demand is met will affect how carbon intensive City of Vancouver electricity use is. Without influence on supply, the City's biggest challenge will be to influence demand through encouraging conservation and behaviour change.

"Neighbourhood Energy will contribute greatly to achieving high building performance and environmental standards at River District and we remain committed to securing a low carbon energy source. The City will continue to be a crucial ally in achieving that goal."

Ross Hanson, *Chief Financial Officer, River District Energy*



3

GREEN BUILDINGS

GOAL: LEAD THE WORLD IN GREEN BUILDING DESIGN AND CONSTRUCTION

TARGETS:

- Require all buildings constructed from 2020 onward to be carbon neutral in operations.
- Reduce energy use and greenhouse gas emissions in existing buildings by 20% over 2007 levels.

BENEFITS:

- Reduces energy costs
- Creates green jobs
- Improves air quality and health
- Improves climate adaptation
- Improves water conservation
- Increases quality of life

Over 300,000 kWh saved from retrofits identified by the Business Energy Advisor Program from July 2011 to July 2012.

46 per cent increase in private LEED (Leadership in Energy and Environmental Design) projects since 2008.

The energy consumed by buildings makes up approximately 55 per cent of the City's greenhouse gas emissions. This means that supporting energy efficiency retrofits, providing incentives for green building strategies and making changes to the building code that improve energy efficiency are critical to reducing greenhouse gas emissions.

2011-2012 SUCCESSES:

LAUNCHED BUSINESS ENERGY ADVISOR PROGRAM

Business Energy Advisors provide free audits and advice on energy efficiency upgrades, thanks to funding from the province's LiveSmart BC: Small Business Program and partnership with the Vancouver Economic Commission. Through this program, Colin Campbell, a designer showroom catering to the architectural and design community in Vancouver, replaced over 140 halogen showroom spotlights with more efficient LED light bulbs, saving over \$2,000 a year and receiving a payback in 15 months. These upgrades not only help reduce greenhouse gas emissions in the community, but they reduce maintenance costs as LED lights lasts ten times longer than halogen bulbs. From the launch of the program in July 2011 through to the end of July 2012, over 228 businesses received a free walk-through assessment and customized report with recommended upgrades, available rebates, and estimated costs. An advisor is available to help businesses further by coordinating the work with pre-approved contractors and by applying for utility rebates. To date, the program has reduced annual energy consumption by over 300,000 kWh. This is equivalent to the amount of energy needed to power nine homes for a year.

SUPPORTING BUILDING RETROFITS

In 2011 the City, in partnership with Vancity, launched the Home Energy Loan Program to help residents make energy efficiency retrofits to their homes by connecting them to affordable financing and government rebates. Through the program, homeowners go through a third-party energy assessment and receive a report detailing recommended energy- and cost-saving upgrades. Participants also receive end-to-end support to assist them in applying for the program and selecting a reputable contractor. This program helps homeowners overcome common barriers to undertaking energy efficiency retrofits, including long payback periods and lack of information or support.



SUPPORTING CONSTRUCTION OF GREEN BUILDINGS

For all rezonings, the City requires a higher standard of building performance and LEED Gold certification. Five to seven per cent of the increased costs are covered through a reduction in rezoning charges to the developer.

In 2011, Council adopted the Higher Buildings Policy which requires excellence in architecture and innovative green building design with a 40 to 50 per cent reduction in energy use, in exchange for additional building height. Current development applicants are leading the way and including features such as renewable energy systems, living walls, onsite water and wastewater treatment, rainwater collection and solar energy collectors.

CHALLENGES

While initiatives such as the Home Energy Loan Program, or the Business Energy Advisor program can help to reduce the city's greenhouse emissions, they rely on voluntary participation from residents and businesses in the community. The City can continue to develop these programs to support residents and businesses but it is challenging when saving energy isn't top of mind. The relatively low cost of natural gas means there is less urgency among businesses and residents to pursue energy savings through energy retrofits.



VAN DUSEN LIVING BUILDING

A living building is defined as having no impact on its environment, using materials that are safe and healthy, being water independent and energy self-sufficient and inspiring beauty. Van Dusen Botanical Gardens Visitor Center is all of those things and is expected to be Canada's first certified living building. The building was designed by Busby Perkins + Will and features a green roof, a rainwater capture system, solar panels for energy generation and stormwater and blackwater recycling. The building is inspired by the petals of a flower with a bright solar chimney that also serves to exhaust hot air. It's a project that also meets LEED Platinum standards and serves as an example of what is possible for the Park Board and the City of Vancouver, changing what it means to be living with nature.



4 GREEN TRANSPORTATION

GOAL: MAKE WALKING, CYCLING, AND PUBLIC TRANSIT PREFERRED TRANSPORTATION OPTIONS

TARGETS:

- Make the majority (over 50%) of trips by foot, bicycle, and public transit.
- Reduce average distance driven per resident by 20% from 2007 levels.

BENEFITS:

- Reduces energy costs
- Creates green jobs
- Improves air quality and health
- Increases quality of life

Cycling up 26 per cent in Metro Vancouver since 2008.

Encouraging more sustainable modes of transportation not only helps improve air quality and reduce the large contribution in greenhouse gas emissions from vehicles, it also frees up more road space for quicker and more efficient goods movement. Making sustainable transportation choices also means that residents become healthier and more active citizens, improving quality of life.

2011-2012 SUCCESSES:

DEVELOPING AN INTEGRATED TRANSPORTATION PLAN

Vancouver's last long-range transportation plan was written in 1997 and the actions required within it were mostly completed by 2010. The City is currently developing a new transportation plan: Transportation 2040.

The Transportation 2040 plan's foundational goal is to see Vancouverites walk, bike and use transit for more of their daily trips. To get there, the plan will include strategies such as improving pedestrian safety and accessibility, expanding and upgrading cycling systems for people of all ages and abilities, advocating for enhanced transit service, supporting effective and efficient goods movement, while accommodating those trips where it makes the most sense to drive.

The first phase of consultation on the new plan drew 8,700 participants and was completed in the summer of 2011. The second phase of consultation on the draft policies and actions took place in the spring of 2012, engaging over 10,000 people in consultation through stakeholder meetings, public events, the Talk Transportation with Us website, social media and an online questionnaire. The final plan will be completed by late fall 2012.

COMPLETED A PEDESTRIAN SAFETY STUDY

In late spring of 2012, the City completed its first pedestrian safety study to identify opportunities to improve safety through education, enforcement and engineering measures. Staff will implement the study's key recommendations as part of improving the safe walkability of the city.

INVESTED IN TRANSIT INFRASTRUCTURE

Over the years, the City has also made a number of significant investments towards the planning and implementation of rapid transit within its own boundaries. The City has made contributions totaling approximately 37 million dollars to the Olympic Village Station and Broadway City Hall station among others, as well as land contributions to a public right-of-way at Marine Drive Station and land contributions to other rapid-transit stations. While the City doesn't own or operate any regular transit services, transit improvements form a significant amount of yearly transportation-related capital spending and staff resources. On average, the City spends over \$200,000 annually on transit-related improvements such as bus bulges, passenger landing areas, implementation of new or modified routes, and changes to the street to improve transit comfort and reliability.



EXPANDING SEPARATED BIKE LANES

The Hornby Street and Dunsmuir Street separated bike lanes were recently made permanent to support the increase in sustainable mode share travel. Separated bike lanes help to encourage cycling as a safe mode of transportation and make for a more attractive, comfortable cycling environment. Early data shows that bicycle ridership on the Dunsmuir route increased by 36 per cent last year (in 2011 compared to 2010). Overall bike traffic has increased by 8 per cent for both the Dunsmuir and Burrard Bridge bike lanes.

EXPANDING CAR SHARE CAPACITY

Car sharing services are an effective way to reduce greenhouse gas emissions in the community because they allow people the option to use a car only when needed. Vancouver has been home to two car sharing services, Modo and Zip Car, for a number of years. In 2011 Car2Go, a point-to-point car sharing service, expanded to Vancouver. Members swipe their membership card over a scanner in the windshield of any of the 200 Car2Go branded cars across the City to begin a rental, and can end their rental at their destination, eliminating the need for round trip use of the vehicle. This summer Car2Go expanded their program by 100 more cars, and their service area increased by 50 per cent.



CHALLENGES

Investing in pedestrian safety and accessibility, as well as in cycling infrastructure is important to making sustainable transportation choices an even more attractive option. In addition, getting more people to choose these methods of travel requires an efficient, affordable public transportation system. The main challenge for a significant expansion of transit infrastructure and services across the region is TransLink's

current funding gap. In Metro Vancouver, Translink has broad responsibilities to plan and deliver transit services, develop integrated regional road and cycling networks, and promote car-pooling and other ways to manage transportation demands. Finding a sustainable, long-term funding solution with Metro Vancouver mayors and the provincial government is the next step.



5

ZERO WASTE

GOAL: CREATE ZERO WASTE

TARGETS:

- Reduce solid waste going to the landfill or incinerator by 50% from 2008 levels.

BENEFITS:

- Conserves natural resources
- Reduces greenhouse gas emissions from landfills
- Creates green jobs
- Improves water quality

Waste going to landfill down 4 per cent since 2008.

Reducing the amount of garbage created not only extends the life of Vancouver's landfill, it also reduces greenhouse gas emissions created by transportation of waste and its decomposition. When diverted properly, garbage can be a useful resource. Composting creates nutrient-rich soil, and recycling metals and plastics consumes less energy than the manufacture of new materials. Moving Vancouver towards a zero waste future requires changing behaviour and changing the system so that the least wasteful options are also the most convenient options.

2011-2012 SUCCESSES:

LAUNCHED A FAST-TRACK DECONSTRUCTION PERMIT

Seeing a house bulldozed and its materials carted off to the dump is not an uncommon sight in Vancouver. Demolition and construction waste account for approximately 22 per cent of the total waste in Metro Vancouver. In 2011, the City partnered with industry on a deconstruction and green jobs pilot project to deconstruct two homes in Vancouver and demonstrate the social, environmental and economic benefits of this approach. The project provided green jobs training for at-risk youth and diverted 93 per cent of all building materials from the landfill (about 80 tonnes from each house). The pilot helped inform the development of a voluntary deconstruction permit program for houses and duplexes, which was introduced in February 2012 to encourage deconstruction as an alternative to demolition. The benefit to industry of the deconstruction permit is that it is issued much faster than a demolition permit and allows enough time for deconstruction and site preparation before building begins. Permit applicants must commit to diverting at least 75 per cent of materials from disposal. The City also offers a discount at the Vancouver Landfill to deconstruction permit holders.

LAUNCHED EXPANDED FOOD SCRAPS RECYCLING FOR SINGLE FAMILY AND DUPLEX HOUSES

The regional solid waste management plan targets 2015 as the year in which all compostable organics will be banned from the landfill. In anticipation, the City recently introduced a food scraps recycling program.

As of Earth Day 2010, Vancouver residents in single family and duplex homes could compost raw fruit and vegetable scraps by placing them in their yard trimmings bin. In September 2011, the City started a pilot to collect all food scraps (including cooked foods, meats, fish, dairy, grains, etc.) from 2,000 homes in the Riley Park and Sunset neighbourhoods. The pilot⁴ tested several education approaches, and introduced weekly green bin collection, with a change to every-other-week garbage collection.

On September 11, 2012, the City launched full-food scraps recycling for all single family and duplex homes citywide.

⁴ Advanced Permitting for Deconstruction
<http://vancouver.ca/commsvcs/developmentservices/subreg/pdf/DeconstructionBrochure.pdf>

⁵ Food Scraps Recycling Program Food Scraps Pilot Program
vancouver.ca/projects/foodwaste/rileysunset-about.htm



LAUNCHED FOOD SCRAPS RECYCLING PILOT FOR APARTMENT AND CONDOMINIUM RESIDENTS

In March 2012, the City also started a food scraps collection pilot for low-rise apartment and condo buildings. Best practice research and collaboration with garbage collection companies is also underway. The pilot and research results will help shape a food scraps recycling strategy for all apartment and condo buildings in the city.

LAUNCHED A FOOD SCRAPS DROP SPOT

To give apartment and condo residents an early opportunity to recycle food scraps, the City provided a Greenest City Neighbourhood Grant to Vancouver Farmers Market Society to run a food scraps drop spot at the West End Farmers Market. The drop spot received over 2,000 drop offs and diverted over five tonnes of food scraps in the summer and fall of 2011.

The City's deconstruction pilot project provided green jobs training for at-risk youth and diverted 93 per cent of all building materials from the landfill (about 80 tonnes from each house).



SUPPORTING EXTENDED PRODUCER RESPONSIBILITY

Extended Producer Responsibility (EPR) holds businesses responsible for the end of life management of the products and packaging that they manufacture and sell. The goal of EPR is to shift from taxpayers paying for disposal costs to user-pay systems where the cost of disposal is included in the price of products. This gives businesses an incentive to design their products with the environment in mind.

B.C.'s EPR programs offer significant recycling opportunities that municipalities can't afford to provide on their own. While the City does not have the authority to ban materials, the City is working closely with the Province to expand and enhance EPR programs. For instance, the City was involved in the development of a regulation that requires industry to develop an EPR program for all packaging and printed paper by May 2014.

In addition, there will soon be new recycling opportunities for items such as plastic bags, coffee cups, takeout and fast food packaging, Styrofoam, and other materials.

CHALLENGES

While composting more food scraps and capturing more recycling more paper, plastic, metal and glass are top zero waste priorities, the City only has control over garbage from single-family homes which are serviced by City crews. Private companies collect garbage from businesses/institutions and apartments/condominiums, which account for 44 per cent and 16 per cent respectively of Vancouver waste transported to landfills and incinerators. The construction and demolition sector accounts for an additional 21 per cent. Therefore, creating opportunities and incentives for waste diversion from these sectors is an important challenge if the City is going to reach its 2020 zero waste target.



6

ACCESS TO NATURE

GOAL: VANCOUVER RESIDENTS ENJOY INCOMPARABLE ACCESS TO GREEN SPACES, INCLUDING THE WORLD'S MOST SPECTACULAR URBAN FOREST

TARGETS:

- All Vancouver residents live within a five-minute walk of a park, greenway, or other green space by 2020.
- Plant 150,000 new trees by 2020.

BENEFITS:

- Enhances urban environment and quality of public space
- Creates habitat for plants and animals, as well as residents
- Improves air quality and health
- Climate adaptation
- Improves water conservation
- Increases quality of life
- Creates green jobs

92 per cent of residents live within a five-minute walk from green space.

Bringing nature more fully into people's daily lives and enhancing their experience with nature not only improves physical health, it also benefits the environment and wildlife.

2011-2012 SUCCESSES:

GROWING THE URBAN FOREST

Planting trees and other vegetation is an important tool for increasing the quality of life in the city. Plants and trees can reduce carbon dioxide and other air pollutants. Trees provide habitat for many species of birds and other creatures, and provide a healthy human environment as well.

The City's first target is to plant 150,000 new trees by 2020. It is daunting, as it requires adequate space for trees to thrive, as well as the sustained resources to plant and care for them. About two-thirds of those trees can be planted on available public land with the appropriate funding, but about one-third of those trees will have to be planted on private land.

The Vancouver Park Board planted about 5,700 new trees in 2010 and 2011 combined, the majority of which were along city streets. This does not include trees that were planted to replace street trees that were dead or dying. The Park Board is developing a three year street and park tree planting strategy for six priority neighbourhoods: Mount Pleasant, Renfrew-Collingwood, Grandview-Woodland, the West End, Marpole, and the Downtown Eastside. An Urban Forest Management Plan, now underway, will help Vancouver reach its tree planting target in a strategic way that grows a healthy, thriving urban forest for the coming generations of Vancouverites.

IMPROVING THE WALKABILITY TO GREEN SPACES

The second Access to Nature target is to ensure that people can walk from their home to green space in five minutes or less. Currently, about 92 per cent of the city's population can do this. A mix of strategies will be used to add green spaces to the city, including: parkland acquisition (through purchase and redevelopment of private properties), partnering with other public landowners to create more park-like spaces, and turning streets into parks.

So far in 2012, a new mini-park is being designed for Main and 18th Avenue, with construction to be completed in 2013. As part of a CityStudio project, a space in the road right-of-way at Adanac Street and Commercial Drive is being redesigned as a public space.



COLLABORATING WITH CITYSTUDIO

CityStudio focused its efforts on Access to Nature goals and targets in the winter 2012 semester, and the infusion of energy and ideas that these student projects brought to the work was a great success. Twenty students spent a full semester immersed in Access to Nature, and worked with City and Park Board staff to undertake projects focused on:

- Sharing the ResponsibiliTREE: Focused on how to encourage tree planting on private properties;
- Orphaned Spaces: Identifying underutilized public spaces in Grandview-Woodlands and transforming one into a vibrant public space;
- Trout Lake Community Crawl: Development of a map and walking tour in the Trout Lake neighbourhood, exploring art, history, architecture, and green infrastructure;

- VanBirdCity: Working with the Stanley Park Ecology Society to discover what is required to bring more bird life into the city;
- Community Conversations: Planning and hosting a dialogue with Mount Pleasant residents about bringing more trees, food assets such as community gardens, and park space into their neighbourhood.

IMPROVING ACCESS TO PARK DATA

As part of its commitment to providing open data, the Park Board added the Vancouver Street Trees dataset to the City's open data catalogue in January 2012. This provides the public with information about the 138,000 trees that line the city's streets. The Park Board also released a new mobile app about Vancouver's 200+ parks, and includes information about the amenities and facilities people can expect to find there.



CHALLENGES

Many of the actions in this part of the plan require leadership and support from residents, community organizations and businesses. For example, about one-third of the trees that need to be planted must go on private property, as there is limited public land available for trees. The City can support these projects through capital investments, programs, policies, and stewardship arrangements; however, the City does not have the capital to fund all 150,000 new trees and sustain them. Community members need to play a strong supporting role in order for these projects to be fully realized.

WORLD MIGRATORY BIRD DAY

The City, along with the Stanley Park Ecology Society, Bird Studies Canada, Nature Vancouver, Tourism Vancouver and other partners, planned a series of events across the city on May 12, 2012 to recognize World Migratory Bird Day. World Migratory Bird Day is a United Nations initiative that recognizes the importance of birds as key indicators of the health of the environment. Better management of birds and their habitats through initiatives such as Vancouver's Greenest City 2020 Action Plan will benefit birds and residents. Since the Vancouver area has some of the world's most important habitat and over 407 bird species, it is the perfect place to lead the country in celebrating World Migratory Bird Day.



7

LIGHTER FOOTPRINT

GOAL: ACHIEVE A ONE-PLANET ECOLOGICAL FOOTPRINT

TARGETS:

- Reduce Vancouver's ecological footprint by 33% over 2006 levels.

BENEFITS:

- Increases focus on lifestyle and decreased emphasis on consumption
- Engages and empowers residents
- Creates stronger and more resilient communities
- Improves health
- Strengthens local economy

Number of Greenest City community-led projects up 100 per cent since 2011.

Reducing Vancouver's ecological footprint is about living within the planet's ecological limits. This goal cannot be achieved without citizens' individual actions supporting the strategies outlined in the *Greenest City 2020 Action Plan*. To encourage this, the City is providing funding, volunteer opportunities, and facilitating collaboration opportunities with other organizations and residents.

2011-2012 SUCCESSES:

LAUNCHED THE GREENEST CITY FUND

The GCAP has ambitious goals which are only achievable if the community is empowered to take action in a meaningful way. Recognizing this, the City of Vancouver has partnered with the Vancouver Foundation and both organizations are providing \$1 million each to a grant fund that will be distributed over the next four years. Approximately \$500,000 will be distributed each year to enable Vancouver residents to work together to help achieve the Greenest City Goals through projects that: increase the local food supply, increase cycling and walking, conserve water, increase composting, reduce building energy use, and create green jobs, among many other possibilities.

CREATING OPPORTUNITIES FOR GREENEST CITY SCHOLARS

Each year 10 UBC graduate students are selected to undertake summer research projects⁶ that directly contribute to advancing the Greenest City goals. This partnership with UBC recognizes that common sustainability goals will be reached more effectively through collaboration and support. This year, the research projects varied from identifying better ways to engage multi-cultural communities to support and take action on Greenest City Goals, to understanding the role that Business Improvement Associations can play in improving the environmental performance of local businesses. Since 2010, 30 students have been involved with the Greenest City Scholars Program.



SUPPORTING RESIDENTS AND BUSINESS INVOLVEMENT

The City's *Greenest City 2020 Action Plan* website lists information on events and programs that people can participate in as well as sustainability related volunteer opportunities. Residents and business owners can also join the over 8,000 followers on Twitter (@Greenestcity) or 'like' the Greenest City Facebook⁷ page to keep up to date about what's going on and how to get involved. The monthly Greenest City e-Newsletter has over 8,500 subscribers and features a diversity of community events, success stories and updates on the Greenest City initiatives. Visit vancouver.ca/greenestcity to follow the Greenest City on Facebook, Twitter or to sign up for the Greenest City e-Newsletter.

Achieving the goals in this plan requires that everyone participate. Everyone has a role in the vision of a thriving green economy and resilient city. For a listing of the sustainability related volunteer opportunities around the city, check out the Greenest City Action Plan web page.

CHALLENGES

Achieving a one-planet ecological footprint is an ambitious goal. It is much broader and more comprehensive than the other Greenest City goals and requires Vancouver residents to reduce consumption of resources by about two-thirds. City actions alone will not achieve the 2020 target, as large components of the ecological footprint, in particular food and consumer goods, are not traditionally within the scope of City regulation or policy. It requires lifestyle changes at the individual level. It requires more sharing of resources, through actions such as car sharing, and purchasing fewer material goods. It's a challenge but the community has already demonstrated promising energy and enthusiasm.



STUDENTS IN ACTION IN COMPOSTING

Last year, the Vancouver Foundation provided funding to a small group of students from David Thompson Secondary's Green Team who created a neighbourhood composting project. The students picked up food waste by bike from local restaurants and grocery stores along Victoria Drive and brought it to the school to make compost that was then used in the school garden and at nearby BC Housing sites. Thirty to fifty pounds of organic material were diverted from the landfill each day and the students showed how "waste" can be transformed locally into a valuable resource.



8 / CLEAN WATER

GOAL: VANCOUVER WILL HAVE THE BEST DRINKING WATER OF ANY CITY IN THE WORLD

TARGETS:

- Meet or beat the strongest of British Columbian, Canadian and appropriate international drinking water quality standards and guidelines.
- Reduce per capita water consumption by 33% from 2006 levels.

BENEFITS:

- Avoids economic cost and ecological impact of expanding drinking water sources (i.e. new reservoirs or dams)
- Creates green jobs
- Enhances water quality
- Improves water conservation and supports climate change adaptation
- Increases quality of life

Residential water consumption down 11 per cent since 2006.

Water is cycled through the environment endlessly and everyone plays a big part in maintaining its quality. Being wise in how water is treated and used is a big part of ensuring health today and tomorrow.

2011-2012 SUCCESSES:

IMPROVING WATER QUALITY

Vancouver's drinking water consistently met or exceeded British Columbian, Canadian, and appropriate international drinking water quality standards and guidelines in 2011. Maintaining Vancouver's part of the distribution system to a high standard ensures that high quality water is delivered to your tap.

IMPROVING WATER CONSERVATION

Vancouver is on the way to reaching its goal of reducing total water consumption to 390 L per person per day and residential water consumption to 214 litres per person per day. In 2010, Vancouver residential water consumption dropped to 286 L/capita per day, down from the city's 2006 baseline of 320 L/capita per day.

IMPLEMENTING WATER METERING

Water metering has been shown to be effective in other cities in helping people to reduce consumption by increasing their awareness of how much water they are actually using.

With Vancouver's abundant rainfall, it can be hard to remember that reducing water consumption is an important part of ensuring that future generations will continue to have access to high quality drinking water. If action isn't taken to reduce consumption now, Metro Vancouver will have to build new reservoirs by 2050, at great cost both to taxpayers and the local environment. Reduced snowpacks, expected with climate change, will serve to exacerbate supply pressures.

Starting in 2012, all new single family homes and duplexes in Vancouver are required to install a water meter and are billed on a volumetric basis.



IMPLEMENTING SEASONAL WATER RATES

The City has also adopted seasonal water rates⁸, which reflect the increased cost of purchasing water from Metro Vancouver in the hotter, drier months. Seasonal water rates are designed to reflect the cost of water purchases, which fluctuates with the seasons. Seasonal water rates are expected to help reduce peak water demand during the dry summer months.

ENHANCING LAWN SPRINKLING REGULATIONS

In the drier summer months, water demand in Vancouver can double, with people watering lawns, filling swimming pools, or washing cars. From June through September there are lawn sprinkling regulations⁹ in effect to help reduce the peak demand. This year, the City has made lawn sprinkling violations a ticketable offence which will help the City to enforce the regulation.

COMPLETING SEWER SEPARATION

Sewer separation improves the quality of the receiving waters that surround Vancouver. The work to eliminate combined sewer overflows at Crowe and Burrard Streets is almost complete. Because of this ongoing work, Vancouver beaches are open for swimming each year and formerly polluted areas such as False Creek are enjoying the return of marine life including herring, whales, otters, and sea birds.

INVESTING IN THE CAPILANO-SEYMOUR WATER PLANT

The Capilano-Seymour watershed supplies the Lower Mainland with about 70 per cent of its drinking water. The City of Vancouver has contributed approximately \$240 million to the upgrades, which include construction of new water supply and treatment facilities in the Lower Seymour Conservation Reserve (LSCR) and at Capilano River Regional Park.

⁸ Vancouver Council Report November 29, 2011 – 2012 Annual Review of Water Rates under the Water Works By-Law vancouver.ca/cityclerk/cclerk/2011213/documents/a0.pdf

⁹ Vancouver Lawn Sprinkling Regulations vancouver.ca/empvcs/watersavers/water/conservation/sprinkling.htm



CHALLENGES

Ensuring a high-quality, sustainable water supply is important for maintaining quality of life through access to safe and affordable drinking water. The local context, however, plays a role in how people view water. In a rainy Vancouver climate, it is sometimes a challenge for people to comprehend the need for water conservation. Using water efficiently will accommodate the demands of population growth and enable Vancouver to handle the

potential impact of climate change on the water supply. This is a much more cost effective alternative to expanding supply. The challenge for the City is to inspire and support an understanding throughout the community, including businesses of the intrinsic value of water to one's health and wellbeing, and to present opportunities to cultivate water efficient behaviour both at work and at home.



9 / CLEAN AIR

GOAL: BREATHE THE CLEANEST AIR OF ANY MAJOR CITY IN THE WORLD

TARGETS:

- Always meet or beat the most stringent air quality guidelines from Metro Vancouver, British Columbia, Canada, and the World Health Organization.

BENEFITS:

- Reduces energy costs
- Creates green jobs
- Improves air quality and positive health impacts
- Increases quality of life

\$1 million in funding raised to develop electric vehicle charging infrastructure in Vancouver.

The opportunity to breathe clean, unpolluted air should be available to everyone, now and for future generations. Metro Vancouver has jurisdictional responsibility¹⁰ for air quality planning, monitoring and management for the Fraser Valley air shed, of which Vancouver is part.

Vancouver enjoys some of the best air quality in the world, but the increases in population and vehicle numbers will need to be carefully managed if air quality is to be maintained, and even improved. That's another reason the goal of encouraging Vancouver residents to walk, bike or use transit is an important one.

2011-2012 SUCCESSES:

SUPPORTING ELECTRIC VEHICLE INFRASTRUCTURE

One of the main strategies for Clean Air that the City of Vancouver has been working on is to support the use of electric vehicles (EV). In February 2012, Vancouver launched an \$800,000 electric vehicle charging infrastructure trial and will have installed 67 electric vehicle charging stations throughout the city by the end of 2013. The pilot is a partnership between the City, the Federation of Canadian Municipalities, the Governments of Canada and British Columbia, and BC Hydro. The pilot will assess the opportunities and barriers, processes, costs and ideal locations for the installation of EV charging infrastructure. In addition, the new building code will increase readiness of residential and commercial buildings to accommodate electric vehicles.

SUPPORTING NON-ROAD DIESEL EMISSION REGULATIONS

Non-road equipment emissions can be a contributor to poor air quality. The City of Vancouver supported Metro Vancouver's action on a non-road diesel emission regulation. The regulation came into effect this January 1, 2012 regulating emissions of diesel soot from industrial and construction machines such as forklifts and excavators.

In February this year, Vancouver launched an \$800,000 electric vehicle charging infrastructure trial and we will have installed 67 electric vehicle charging stations throughout the city by the end of 2013.

¹⁰ Metro Vancouver Air Quality Management Plan
<http://www.metrovancouver.org/services/air/management/ReviewProcess/Pages/default.aspx>



CHALLENGES:

The most significant challenge in this area is that Metro Vancouver has jurisdictional control over air quality planning in the Lower Fraser Valley, of which the City of Vancouver is part. Metro Vancouver is responsible for monitoring and reporting air quality in the region, controlling industrial, commercial and some residential emissions, and the execution of long term planning. Vancouver continues to collaborate with Metro Vancouver and support the strategies outlined in the plan. The City is also working to improving electric vehicle infrastructure, which will help reduce vehicle tailpipe emissions and provide further insight to the barriers of widespread EV adoption. The major challenge with supporting electric vehicle infrastructure is the lack of electrical supply available at many sites across the city where charge station installations would be ideal. Internal planning and collaboration with businesses and BC Hydro will be key to overcoming this challenge.

BARD ON THE BEACH GOES ELECTRIC

Twenty years later, Bard on the Beach's 15 week season now sees more than 90,000 patrons annually. Most performances are sold out making it a successful festival year after year. Located in Vanier Park, the festival's energy source had previously been from generators but a recent expansion was completed to install electrical infrastructure to allow the event to be held without the use of generators, improving air quality.

“Vancouver has an abundance of natural assets which make it an attractive place to live. Stewardship of these natural assets means that local parks and greenways can thrive; purifying the air and keeping the city cool in summer. Clean air provides a healthy environment for people and the more people that are out and enjoying the community, the livelier and safer the neighbourhood. Having a greener city means having a healthier, safer and happier community.”

Dr. Faisal Moola, *David Suzuki Foundation*



10 LOCAL FOOD

GOAL: VANCOUVER WILL BECOME A GLOBAL LEADER IN URBAN FOOD SYSTEMS

TARGETS:

- Increase city-wide and neighbourhood food assets by a minimum of 50% over 2010 levels.

BENEFITS:

- Increases access to healthy and local food
- Creates green jobs
- Improves air quality and health
- Increases quality of life

The amount of land used for urban farming grew from 2 acres in 2010 to 8 acres in 2012.

Having a resilient food system is central to the sustainability of cities. Currently the food production and distribution processes that are used to feed Vancouver's 600,000 residents account for 49 per cent of the city's ecological footprint. Encouraging the growth of more 'local' food will start to cut down on the use of fossil fuels, halt the loss of food producing lands and biodiversity, support the local economy, and create green jobs.

2011-2012 SUCCESSES:

CREATING A VANCOUVER FOOD STRATEGY – TALK FOOD WITH US

From summer 2011 to spring 2012, City staff worked in close partnership with the Vancouver Food Policy Council and with communities and stakeholders to develop ideas for the Vancouver Food Strategy¹⁷. Building on work already underway in neighbourhoods, the Vancouver Food Strategy provides the City with a clear framework and plan for achieving its food goals. Over 2,200 people were engaged through focus groups, educational workshops, storytelling events and social media. The City employed multi-cultural engagement strategies to solicit input from the diverse cultural communities in Vancouver. The Vancouver Food Strategy will be completed in late fall of 2012.

GROWING LOCAL FOOD ASSETS

Farmers markets in Vancouver bring citizens together with local food and the farmers that grow it. There are six farmers markets in different neighbourhoods across the city. They typically take place on the weekends during the summer growing season, but there is also a winter market at Riley Park Community Centre.

The City has been working hard with community groups and organizations to increase the number of, and access to, community gardens. There have been roughly 450 community garden plots added in the past 18 months for a total of 3,655 garden plots. The City has also planted 61 fruit trees in four orchards in City parks as part of the edible landscaping efforts to increase local food assets.

1,000 new community garden plots created since 2009.



SUPPORTING FOOD GROWING IN STREET GARDENS

Through the Greenstreet Program, the City has increased the number of growing spaces in Vancouver. The City added food to this program in 2012. In doing so, Vancouver has become the first city in Canada to allow food to be planted in street gardens. Concerns about food safety and sanitation were primary considerations in creating safe guidelines to grow food along city streets. Vancouver's food street gardens are limited to locations on slower, quieter streets.

SUPPORTING URBAN FARMING

The City recently approved a lease for three sites to SoleFood[®], a social enterprise that provides urban agriculture employment and training opportunities for Vancouver's inner-city residents. Ten new jobs will be created as a result, in addition to the ten created in the past year.

Urban farming also takes place in yards in neighbourhoods around the city. The approximately 15 yard farms grow food for a Community Supported Agriculture (CSA) model; whereby neighbours receive weekly

harvest boxes throughout the growing season. The City is working with urban farmers to examine the regulatory and operational challenges of growing food for commercial purposes in the city.

CHALLENGES

Developing local food assets and improving distribution and access can sometimes be challenging because food policy and food systems planning is a relatively new field in municipal activity. It requires considerable capacity building and education on the benefits of a sustainable food system, while balancing numerous other City priorities. Creating food assets and infrastructure requires collaboration, leadership and support of the City, community and businesses. Furthermore, one of the key challenges is that base metrics and measures are inconsistent and incomplete for a number of key assets. We're developing indicators, monitoring, and reporting mechanisms to better assist in streamlining how we're measuring food assets. In addition, key variables in developing food assets include finding appropriate locations and funding, and ensuring we're creating opportunities that benefit all citizens in the community.



SUPPORTING LOCAL FOOD NETWORKS

The Potluck Café Society was given a Greenest City Grant of \$17,500 in 2010 to support its Downtown Eastside (DTES) Kitchen Tables™ project the goal of which is to reform the abundance, quality, nutritional impact and dignity of delivery of food in the DTES. This funding helped the organization develop business plans around two of its seven Food Solutions. Since then, the additional support from funders such as the Vancouver Foundation and the City of Vancouver, has enabled Potluck to hire and train a staff of five DTES residents with barriers to traditional employment who work in the community as the DTES Kitchen Tables Outreach Team. This Outreach Team uses innovative methods such as a Nutritional Food Jeopardy and Food Street Theatre in order to engage DTES residents about the value of nutrition as well as every individual's inherent right to food.

Improving access to nutritious food for the people in the DTES is one of the key tenets of the DTES Kitchen Tables Project along with its commitment to improving the lives of people involved in the project and those that are touched by the outreach work.

GREENING OPERATIONS

Demonstrating leadership is an important part of the City's commitment to becoming the greenest city by 2020. As a signatory of the BC Climate Action Charter, the City is committed to reporting its carbon emissions and working towards carbon neutrality. While City operations have been working to reduce energy and greenhouse gas emissions for a number of years, the launch of the Green Operations Plan and Corporate Carbon Strategy, both of which are currently under development, will leverage existing actions, support further reductions in waste, reduce water consumption, and actively manage the City's carbon emissions.

Some of the initiatives focused on City operations include:

IMPLEMENTED FLEET IMPROVEMENTS

The City has already worked to reduce its fleet size, while maintaining service levels, and appropriately sized vehicles. There are also fleet fuel reduction targets for each department and driver behaviour change programs currently in place. In the past year, the City has added four electric cars to its fleet (three Mitsubishi iMiEVs and one

Nissan Leaf), while also providing staff with access to Modo's electric Nissan Leaf during regular office hours.

A staff commuting program encourages car-share, biking, walking or taking transit to off-site meetings. Modo Car Share has been rolled out to all City staff to allow the City to maintain a smaller fleet while ensuring staff can meet their travel needs. This has greatly reduced the need for fleet vehicles and has enabled the City to save money and reduce its environmental impact.

IMPLEMENTED ENERGY RETROFITS

The City has also finished the final phase of its building energy retrofits which saw replacement of boilers, the installation of solar hot water heating for the Templeton Pool and the re-use of waste heat from the neighbouring ice rink at the Sunset Nursery.

GREENING CITY COMPUTERS

The Green Desktop program is an energy conservation initiative for computers in City offices. In the first month of roll-out, the City's Green Desktop program saved over 77,000 kWh or \$4,700. At this rate, the City will save 500 MWh and \$35,000 over the course of a year.

IMPLEMENTING COMPREHENSIVE WASTE REDUCTION AND DIVERSION

The City hired its first Corporate Zero Waste Officer to implement a more comprehensive waste diversion program in some City facilities such as offices, theatres, libraries and police buildings in 2012. This comprehensive waste diversion program will include multi-stream recycling and full-scale composting in City facilities.

RECYCLED MORE CONSTRUCTION AGGREGATE

The City has been recycling aggregate and construction materials for years. In 2011, 177,000 tonnes of concrete and asphalt slab was collected, crushed and screened for use as quality recycled aggregate which represents 47 per cent of the City's overall backfill needs met by recycled material. The material savings over import fill is over \$600,000. That's a reduction of 1,100 tonnes CO₂ equivalent from the reduced truck trips to the landfill. The City also recycled 10,000 tonnes of road grindings for asphalt production.

EXPANDING SUSTAINABLE PROCUREMENT

In 2011, the City adopted a 100 per cent post-consumer-recycled copy paper purchasing policy. This is a first among Canadian municipalities. In 2012, the City will pilot processes for incorporating sustainable and ethical considerations into all requests for supplies or services over \$75,000 (or \$200,000 for construction). This includes assessing suppliers' sustainability leadership and incorporating sustainable practices such as extended producer responsibility into product purchase requirements.

INCREASING LOCAL AND SUSTAINABLE FOOD IN CIVIC FACILITIES

The City is also working with Local Food Plus to increase local and sustainably produced food purchased by City facilities. A number of City facilities already purchase some amounts of local and sustainable food, but increasing this at City facilities such as the Carnegie Center or Gathering Place will be a key opportunity to build the local food demand and support local food farmers.

CONCLUSION

It has been a year since the *Greenest City 2020 Action Plan* was adopted, and there has already been significant action and excitement around the vision. The time is now to act and participation of the community is key.

JOIN IN!

Subscribe to the Greenest City Newsletter at: vancouver.ca/greenestcity

Facebook: Vancouver's Greenest City Initiative

Twitter @GreenestCity

Every Vancouverite needs to play a role in order to achieve the vision for a city with a strong local economy and vibrant and inclusive neighbourhoods that meet the needs of generations to come.





ACKNOWLEDGEMENTS

Thank you to all staff and members of the community for their hard work and contributing their stories.

Photo Credit

- Page 12: *False Creek: A Public Art Project*, Trevor Mahovsky
- Page 17: *VanDusen Botanical Garden*, Raymond Chan
- Page 33: *Biocycle Team from David Thompson Secondary School*, Vincent L. Chan





GREENEST
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